

# *Project Baseline Summary Report*

Data Source: **EM CDB**

Operations/Field Office: **Savannah River**

Site Summary Level: **Savannah River Site**

Project **SR-NM05 / Independent Waste Handling Line Item**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **0491**

---

## **General Project Information**

### **Project Description Narratives**

#### **Purpose, Scope, and Technical Approach:**

The 211-F facility is the only location on site equipped to receive liquid radioactive waste from Savannah River Technology Center and other analytical laboratories. The waste is concentrated and neutralized prior to disposal. F-Canyon provides high level waste evaporation and support services for 211-F. New receipt and treatment equipment for lab liquid waste must be installed to divorce F-Canyon from these activities before F-Canyon can be completely deactivated. These new facilities will also extend the operating life of the waste handling facilities and improve personnel safety. This project covers the design, construction and operation of these new laboratory waste-handling facilities.

#### **Project Status in FY 2006:**

SRS utilizes a risk-based prioritization model to ensure the most serious risks are addressed first during times of tight budgets. The prioritization process was developed with extensive stakeholder involvement. This activity is below the funding line for FY 2000-2001 on the prioritization model. As material stabilization activities are completed in F-Area facilities, some funding is anticipated to be available in FY 2006 to begin basic data and project development.

#### **Post-2006 Project Scope:**

It is assumed that adequate funding will be available starting in FY 2007 to begin work on this line item project. The project is forecast to be completed and the facilities placed in operation in FY 2009. They will continue to handle laboratory waste as long as necessary.

#### **Project End State**

This project will not provide new space or capacity to SRS facilities. This project will provide independent laboratory waste handling capability at SRS for the expected operating life of the laboratory facilities. The facilities will be in compliance with the National Environmental Policy Act, The DOE Order 5440.1A, the Council on Environmental Quality Regulations (40CFR Parts 1500-1508), and the DOE NEPA Guidelines (45 FR 20694, as amended). Compliance with the Clean Air Act, Clean Water Act, National Historic Preservation Act, Endangered Species Act, and other environmental statutes will be accomplished.

#### **Cost Baseline Comments:**

It is assumed that the earliest funding can be made available for this critical path to closure project is FY 2006. The total cost of this Line Item Project is estimated to be approximately \$35 million spread over four years. This is a high spot planning estimate based on similar projects, adjusted for escalation. If these new facilities for handling laboratory liquid wastes are not available at the conclusion of the F-Canyon nuclear material stabilization mission in FY 2003, complete deactivation of F-Canyon will be delayed until they become available. Each year F-Canyon deactivation is delayed will significantly increase the life cycle cost of SR-NM01 project.

The full cost of PBS work scope may change based on the authorized funding and priorities in any given year due to changes in site overhead assumptions. For planning and budgeting purposes, work scope costs were estimated using site overhead rates sized for clearance at a funding target of \$1222.5 million. For FY 2001 (the budget year), the site overhead is applied and cleared at the funding target, while the work scope below the funding

---

Dataset Name: **FY 1999 Planning Data**

Date of Dataset: **9/20/1999**

Page 1 of 6

# *Project Baseline Summary Report*

Data Source: **EM CDB**

Operations/Field Office: **Savannah River**

Site Summary Level: **Savannah River Site**

Project **SR-NM05 / Independent Waste Handling Line Item**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **0491**

---

## **Project Description Narratives**

target (planning level) is incremental direct cost. For FY 2002 and beyond, the site overhead is applied and cleared over the total planning level of scope.

### **Safety & Health Hazards:**

Liquid radioactive waste is presently unloaded at 211-F. The entire east side of the two bay unloading building is open to the atmosphere. Other than a curb, there is little environmental protection in the event of a radioactive liquid spill. There is no building ventilation system; therefore, air filtration is not possible. In addition, most of the structures, systems, and components are nearly 40 years old. The HAW unloading bay is only four inches wider than the HAW trailer. The trailer must be backed into the very tight loading/unloading bays. This undesirable situation presents the largest potential for a safety and/or environmental incident. Also, access to the manually actuated transfer valves in the SRTC loading bay is very restricted. This presents a safety hazard, particularly in an emergency.

### **Safety & Health Work Performance:**

Activities and checkpoints are described by the SRS Integrated Management System and specifically controlled by the SRS Work Control System. The conditions and requirements are clearly established and agreed upon prior to the starting of any project and those requirements are contractually binding upon WSRC. WSRC uses the Integrated Safety Management System (ISMS). The key elements of ISMS are to define the scope of work, identify and analyze hazards associated with the work, develop and implement hazard controls, perform work within controls, and provide feedback on adequacy of controls and continue to improve safety management. The WSRC Integrated Procedures Management System is the primary mechanism for implementing the objective, principles and functions of the Integrated Safety Management System. This system establishes Company-Level, Division-level, and Program-specific procedures consistent with organizational roles, and ensures a consistent, discipline site-wide approach to safety while performing work.

### **PBS Comments:**

The Interim Management of Nuclear Materials EIS categorized certain isotopes of plutonium, neptunium, americium, and curium as programmatic, leaving the issue of long-term use of these materials to DOE. The requirement is to process the Np solution in H-Canyon to remove fission products and other material that would interfere with subsequent stabilization steps. Many uncertainties are the subject for continuing study and as the DNFSB indicated "this problem is urgent", especially in view of the shrinking budget concerns. Currently the approach to this programmatic material is to stabilize this product to an oxide by processing the solutions in H-Canyon and complete the stabilization to an oxide form in HB-Line. Neptunium processing is addressed in project SRS- NM02 (H-Area Stabilization).

### **Baseline Validation Narrative:**

None to date because this project can not be funded prior to FY 2006.

## **General PBS Information**

**Project Validated?**

**Date Validated:**

**Has Headquarters reviewed and approved project?**

No

---

Dataset Name: **FY 1999 Planning Data**

Date of Dataset: **9/20/1999**

Page 2 of 6

# Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Savannah River**

Site Summary Level: **Savannah River Site**

Project **SR-NM05 / Independent Waste Handling Line Item**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **0491**

## General PBS Information

Date Project was Added: 12/1/1997

Baseline Submission Date: 7/3/1999

FEDPLAN Project? Yes

Drivers:	CERCLA	RCRA	DNFSB	AEA	UMTRCA	State	DOE Orders	Other
	N	N	N	N	Y	N	Y	Y

## Project Identification Information

DOE Project Manager: Gordon M. Nichols, Jr.

DOE Project Manager Phone Number: 803-952-2021

DOE Project Manager Fax Number: 803-952-2495

DOE Project Manager e-mail address: gordon.nichols@srs.gov

Is this a High Visibility Project (Y/N):

## Planning Section

### Baseline Costs (in thousands of dollars)

	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006
PBS Baseline (current year dollars)	730	673,650	674,380						0	0	0	0	0	0	730
PBS Baseline (constant 1999 dollars)	595	218,781	219,376						0	0	0	0	0	0	595
PBS EM Baseline (current year dollars)	730	673,650	674,380						0	0	0	0	0	0	730
PBS EM Baseline (constant 1999 dollars)	595	218,781	219,376						0	0	0	0	0	0	595

Dataset Name: **FY 1999 Planning Data**

Date of Dataset: **9/20/1999**

Page 3 of 6

# Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Savannah River**

Site Summary Level: **Savannah River Site**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **0491**

Project **SR-NM05 / Independent Waste Handling Line Item**

	2007	2008	2009	2010	2011- 2015	2016- 2020	2021- 2025	2026- 2030	2031- 2035	2036- 2040	2041- 2045	2046- 2050	2051- 2055	2056- 2060	2061- 2065	2066- 2070
PBS Baseline (current year dollars)	25,800	8,500	4,650	4,200	22,800	26,000	30,000	34,000	38,800	44,300	50,600	57,800	66,000	75,500	86,200	98,500
PBS Baseline (constant 1999 dollars)	20,487	6,572	3,501	3,079	15,441	15,411	15,565	15,441	15,422	15,413	15,410	15,406	15,399	15,417	15,407	15,410
PBS EM Baseline (current year dollars)	25,800	8,500	4,650	4,200	22,800	26,000	30,000	34,000	38,800	44,300	50,600	57,800	66,000	75,500	86,200	98,500
PBS EM Baseline (constant 1999 dollars)	20,487	6,572	3,501	3,079	15,441	15,411	15,565	15,441	15,422	15,413	15,410	15,406	15,399	15,417	15,407	15,410

## Baseline Escalation Rates

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
			3.60%	3.60%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%
2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%

## Project Reconciliation

### Project Completion Date Changes:

Previously Projected End Date of Project: 9/30/1997

Current Projected End Date of Project: 9/30/2070

Explanation of Project Completion Date Difference (if applicable):

### Project Cost Estimates (in thousands of dollars)

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):

Actual 1997 Cost:

Actual 1998 Cost:

Dataset Name: **FY 1999 Planning Data**

Date of Dataset: **9/20/1999**

# Project Baseline Summary Report

Data Source: EM CDB

Operations/Field Office: Savannah River

Site Summary Level: Savannah River Site

Project SR-NM05 / Independent Waste Handling Line Item

Report Number: GEN-01b

Print Date: 3/9/2000

HQ ID: 0491

## Project Reconciliation

Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	0	Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):	0
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	0		

## Project Cost Changes

	Cost Adjustments	Reconciliation Narratives
Cost Change Due to Scope Deletions (-):		
Cost Reductions Due to Efficiencies (-):		
Cost Associated with New Scope (+):	219,378	Construce and operate facilities to process analytical lab liquid Rad waste to allow F Canyon deact
Cost Growth Associated with Scope Previously Reported (+):		
Cost Reductions Due to Science & Technology Efficiencies (-):		
Subtotal:	219,378	
Additional Amount to Reconcile (+):	-2	
Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	219,376	

## Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
SR-NM05 Independent Waste Handling LI Project Start	SR-NM05-001		1/1/2006								
Construction Complete of the Independent Waste Handling Facility	SR-NM05-002		9/30/2009								
Completion of the SR-NM05 Independent Waste Handling PtC Project	SR-NM05-099		9/30/2070								

## Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critical Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
SR-NM05 Independent Waste	SR-NM05-001			Y							Initiation of the work to install liquid

Dataset Name: FY 1999 Planning Data

Date of Dataset: 9/20/1999

# Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Savannah River**

Site Summary Level: **Savannah River Site**

Project **SR-NM05 / Independent Waste Handling Line Item**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **0491**

## Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critical Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
Handling LI Project Start											waste handling capability to F-Area vice the current canyon capability. Completion of this work is required to allow deactivation of the F Canyon. No SEG milestone.
Construction Complete of the Independent Waste Handling Facility	SR-NM05-002										Construction will have been completed on the new Independent Waste Handling Facility in F-Area. No SEG milestone.
Completion of the SR-NM05 Independent Waste Handling PtC Project	SR-NM05-099				Y						Formal completion of the Independent Waste Handling Facility will have been achieved. No SEG milestone.